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TITLE: HOME ZONE LIST AUTOMATIC GENERATING METHOD IN MOBILE
                COMMUNICATION SYSTEM

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ABSTRACT:

    PROBLEM TO BE SOLVED: To provide a method that provides an updated home zone
database to an especially related mobile phone subscriber in a mobile
communication system.

    SOLUTION: The home zone list generating method of this invention includes a
step where a subscriber receives address location information that is going to
be determined at a home zone location, a step where an object base station
located within a preset distance from the address location is detected, a step
where a coverage area around the address location is divided into many sub
coverage areas, a step where a detected BTS(Base Transceiver Station) is
coupled with each of the sub coverage areas divided from the coverage area, a
step where priority is placed on the BTSes in each sub coverage area according
to 1st-3rd tiers, and a step where a new sector list with respect to the
subscriber on the basis of sector angle data of the 1st tier BTS is generated.

【図1】
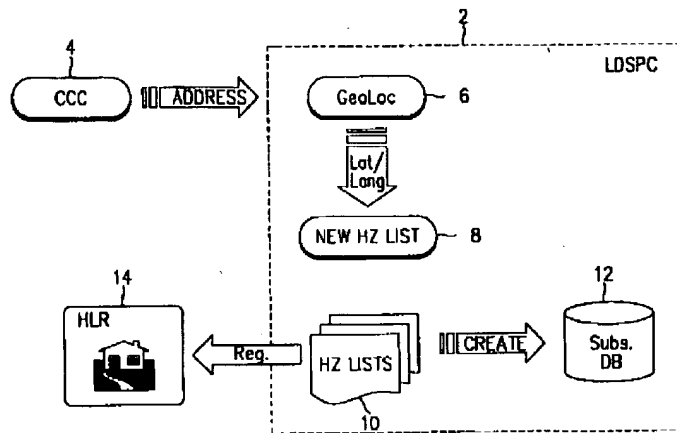
【図2】

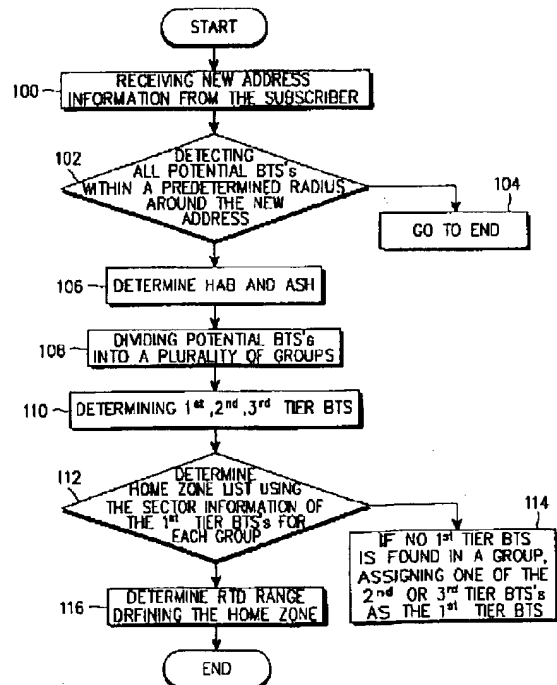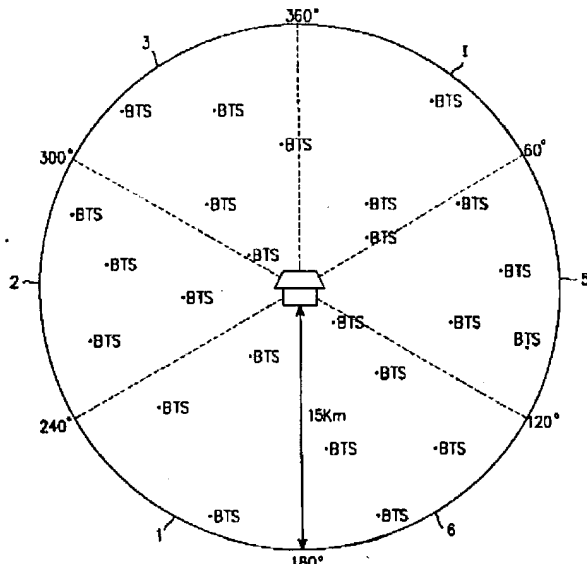| Subs DB : HZ U st DB	
nsn	NATIONAL SWITCHING NUMBER
nid1	NETWORK IDENTIFIER(MSC)
bts1	(N=1) BTS_ID
sector1	(N=1) SECTOR_ID
rtd1	(N=1) RTD_MN
OFFSET1	(N=1) RTD_MAX
......	
nid16	NETWORK IDENTIFIER(MSC)
bts16	(N=1) BTS_ID
sector16	(N=1) SECTOR_ID
rtd16	(N=1) RTD_MN
OFFSET16	(N=1) RTD_MAX

【図4】

【図6】

【図３】

DB NAME	LDSPC	TABLE DESCRIPTION OK				Ver si on	ED 1.0
TABLE ID	BTS_65					DATE	YYYY. NM DD
DESC	BTS PARAMETER						
NO	COLUMN	TYPE	Len	FEATURE	STORAGE TYPE	DESCRIPTION	
1	bts_j d	chor	16	NOT NULL		BTS ID	
2	l otl	chor	10	NOT NULL		LATITUDE	
3	LONG	chor	11	NOT NULL		LONGITUDE	
4	ANGLE1	SMALL INT	2	NOT NULL		ANGLE OF α SECTOR(0~360)	
5	ANGLE2	SMALL INT	2	NOT NULL		ANGLE OF β SECTOR(0~360)	
6	ANGLE3	SMALL INT	2	NOT NULL		ANGLE OF γ SECTOR(0~360)	
7	s_DELAY1	SMALL FLOAT	4	NOT NULL		SECTOR SYSTEM DELAY	
8	s_DELAY2	SMALL FLOAT	4	NOT NULL		SECTOR SYSTEM DELAY	
9	s_DELAY3	SMALL FLOAT	4	NOT NULL		SECTOR SYSTEM DELAY	
10	svc_ron1	SMALL FLOAT	4	NOT NULL		SECTOR SERVICE RANGE	
11	svc_ron2	SMALL FLOAT	4	NOT NULL		SECTOR SERVICE RANGE	
12	svc_ron3	SMALL FLOAT	4	NOT NULL		SECTOR SERVICE RANGE	
13	exp_ron	SMALL FLOAT	4	NOT NULL		CHP NUMBER AT EXCEPTION CASE	
14	DIRTY	SMALL INT	2			BTS Add/REMOVE/Opt.	
NO	INDEX FIELD					DESCRIPTION	
1	bts65_j dx(U): bts_id					BTS_ID	

【図５】

$$\theta = ARCTAN\left(\frac{Y_b - Y_b}{X_b - X_b}\right)$$
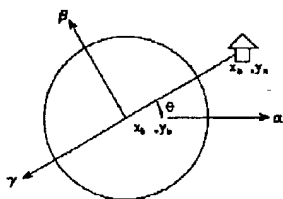
- Xb : BTS LONG
- Yb : BTS Lat'
- θ antenno : THE ANGLE OF ANTENNA
- Xh : Subsb. HOME LOCATION(LONG)
- Yn : Subsb. HOME LOCATION (LATI)

Xh−Xb=0, Yh−Yb>0	θ =0°
Xh−Xb>0, Yh−Yb>0	θ =(90−θ)° * 180/n
Xh−Xb>0, Yh−Yb=0	θ =90°
Xh−Xb>0, Yh−Yb<0	θ =(90−θ)° * 180/n
Xh−Xb=0, Yh−Yb<0	θ =180°
Xh−Xb<0, Yh−Yb<0	θ =(270−θ)° * 180/n
Xh−Xb<0, Yh−Yb=0	θ =270°
Xh−Xb<0, Yh−Yb>0	θ =(270−θ)° * 180/n
Xh−Xb=0, Yh−Yb=0	BTS ANGLE = HOME ANGLE